Thursday, March 11, 2010

Opening remark (9:20-9:30)

Invited Talks 1 (9:30-12:10)

9:30 I-01 **New formation process of solar-grade Si from metallurgical-grade Si by chemical transport in near atmospheric-pressure hydrogen plasma**
K. Yasutake, H. Ohmi, and H. Kakiuchi
Osaka University, Japan, JST, CREST, Japan

10:05 I-02 **PLASMAS IN LIQUIDS AND THEIR APPLICATIONS**
B. Graham
Queen's University Belfast, UK

Coffee Break (10:40-11:00)

11:00 I-03 **Future prospects in plasma etching**
O. Joubert[1], E. Pargon[1], G. Cunge[1], T. Chevolleau[1], M. Darnon[1], L. Vallier[1], T. David[2], S. Barnola[2], and T. Lill[3]
[1]LTM (CNRS-UJF-INPG), France, [2]CEA-LETI, France, [3]Applied Materials Inc., USA

11:35 I-04 **Plasma nanoscience: synergies and opportunities**
K. Ostrikov
CSIRO Materials Science and Engineering, Australia, The University of Sydney, Australia

Lunch (12:10-13:20)

Invited Talks 2 (13:20-15:05)

13:20 I-05 **Plasma Biology: What happens when cells meet plasma molecules?**
M.G. Kong
Loughborough University, UK

13:55 I-06 **Nanobiodevice from Single Biomolecule and Cell Analysis to Biomedical Applications**
Y. Baba
Nagoya University, Japan, National Institute of Advanced Industrial Science and Technology (AIST), Japan

14:30 I-07 **PLASMA MEDICINE**
A. Fridman
Drexel University, USA

Coffee Break (15:05-15:25)

Contributed Talks 1 (15:25-17:05)

15:25 O-01 **Bacterial inactivation using atmospheric pressure capillary tube based micro-plasma system with hollow inner electrode**
C.-C. Weng[1], T.-Y. Lin[1], H.-H. Chen[1], J.-D. Liao[1], C.-C. Ho[2], and Y.-T. Ho[2]
[1]National Cheng Kung University, Taiwan, [2]Taiwan Plasma Corp., Taiwan

15:45 O-02 **Plasma needle treatments of the human peripheral blood-derived multipotent mesenchymal stem cells (hPB-MSC)**
S. Lazović[1], N. Puač[1], M. Miletić[2], D. Maletić[1], G. Malović[1], D. Bugarski[3], S. Mojsilović[3], P. Milenković[2], and Z. Lj. Petrović[1]
[1]Institute of Physics, Serbia, [2]Faculty of Stomatology, Serbia, [3]Institute for the Medical Research, Serbia

16:05 O-03 **Computer simulation of 3C-SiC powder production at initial stage of nucleation**
A. Bondareva, and G. Zmievskaya
M.V. Keldysh institute of applied mathematics of Russian Academy of Sciences, Russia

16:25 O-04 **Raman and AFM studies of fabricated Graphitic Carbon Nanostructures on n-Si <111> With Extremely Non-Equilibrium Plasma conditions**
Y. Malhotra, S. Roy, and M.P. Srivastava
University of Delhi, India

16:45 O-X **Study of hafnium oxide nano-scale film deposited using Dense Plasma Focus as a gate dielectric for a MOS device**
A. Srivastava[1], and Y. Malhotra[2]
[1]Indian Institute for Information Technology, India, [2]University of Delhi, India

Poster Session (17:10-18:40)

P-01 **In-situ growth of a single nano needle on a metal whisker induced by periodically scanning electron beam and its field emission property**
B. Liang, C. Chen, A. Ogino, and M. Nagatsu
Shizuoka University, Japan

P-02 **Non-isothermal Growth of Carbon Nanotubes**
F.-L. Lu, W.-Y. Chen, and J.-M. Ting
National Cheng Kung University, Taiwan

P-03 **Synthesis and Fabrication of Functional Nanomaterials**

J. Hahm
Penn State University, USA

P-04 **In-situ observations of growth processes of carbon nanowalls using spectroscopic ellipsometry**

K. Yasuda[1], S. Kondo[1], K. Yamakawa[2], H. Kondo[1], M. Hiramatsu[3], M. Sekine[1], and M. Hori[1]
[1]Nagoya University, Japan, [2]Katagiri Engineering Co., Ltd., Japan, [3]Meijo University, Japan

P-05 **Identification of carbon nanostructures obtained by synthesis of powder residues from discarded tires**

R. Mis-Fernández[1], C.R. Rios-Soberanis[1], J. Arenas-Alatorre[2], and J.A. Azamar-Barrios[3]
[1]Centro de Investigación Científica de Yucatán, Unidad de Materiales, México, [2]Instituto de Física de la UNAM, Departamento de Materia Condensada, México, [3]Centro de Investigación y de Estudios Avanzados (CINVESTAV) del IPN-Unidad Mérida, México

P-06 **Investigation of influence of Single Carbon Nano Wall structure on Field Effect Transistor electrical parameters and characteristics**

A. Malinowski[1,2,3], M. Hori[1], M. Sekine[1], H. Kondo[1], L. Lukasiak[2], A. Jakubowski[2], and D. Tomaszewski[3]
[1]Nagoya University, Japan, [2]Warsaw University of Technology, Poland, [3]Institute of Electron Technology, Poland

P-07 **Dense Plasma Focus assisted formation of Carbon Nanoloops on Quartz substrate**

S. Roy, and M.P. Srivastava
University of Delhi, India

P-08 **Synchrotron X-ray diffraction analyses of carbon nanowalls synthesized by radical-injection plasma-enhanced chemical vapor deposition system**

H. Kondo[1], W. Takeuchi[1], S. Kondo[1], K. Yamakawa[2], M. Hiramatsu[3], M. Sekine[1], and M. Hori[1]
[1]Nagoya University, Japan, [2]Katagiri Engineering Co., Ltd., Japan, [3]Meijo University, Japan

P-09 **Diamond Deposition on Thick Substrates by Cooled Acetylene/Oxygen Combustion Flame**

Y. Ando
Ashikaga Institute of Technology, Japan

P-10 **Increase of Young's modulus of diamond-like carbon by using Adamantane as Precursor Material in Plasma-Enhanced CVD**

S. Moroto, H. Kousaka, and N. Umehara
Nagoya University, Japan

P-11 **Hardness increase of amorphous carbon film coated by pulsed-plasma ablation of PTFE**

S. Kawara[1], H. Koizumi[2], H. Kousaka[1], K. Yamada[3], and N. Umehara[1]
[1]Nagoya University, Japan, [2]Japan Aerospace Exploration Agency, Japan, [3]Asahi Glass Co. Ltd., Japan

P-12 **The rotational temperature of the CH radical differentiates hydrogenated amorphous carbon etching from deposition**

T.A.R. Hansen, P.G.J. Colsters, M.C.M. van de Sanden, and R. Engeln
Eindhoven University of Technology, The Netherlands

P-13 **Light Extraction Enhancement of GaN-based Light Emitting Diodes using Nano-patterned Sapphire Substrates**

S.-M. Kim[1], H.-S. Oh[1], J.-H. Baek[1], S.-Y. Park[2], and W.-H. Huh[2]
[1]Korea Photonics Technology Institute (KOPTI), Korea, [2]Extol Inc., Nagoya University, Korea

P-14 **Simulation and Experimental Verification of Inductively-Coupled Fluorocarbon Plasmas**

F. Itazu[1], K. Nakamura[1], and M. Tanaka[2]
[1]Chubu University, Japan, [2]PEGASUS Software Inc., Japan

P-15 **Applying Reactive Ion Etching for the Fabrication of PhoXonic Crystals**

D. Dudek[1], V. Reboud[1], N. Kehagias[1], J. Cuffe[1], and C.S. Torres[1,2]
[1]Catalan Institute of Nanotechnology and (ICN-CIN2) Campus Bellaterra, Spain, [2]Institute for Research and Advanced Studies, Spain

P-16 **Dissociation channel of c-C_4F_8 to CF_2 radical in reactive plasma**

T. Hayashi[1], K. Ishikawa[1], M. Sekine[1], M. Hori[1], A. Kono[1], and K. Suu[2]
[1]Nagoya University, Japan, [2]ULVAC Inc., Japan

P-17 **ANISOTROPIC DRY ETCHING OF ZnO FILMS IN FLUORINE-BASED INDUCTIVELY COUPLED PLASMAS**

J.C. Park[1], H.W. Kim[1], H.J. Jeong[2], J.H. Koo[2], G.W. Lee[2], B.W. Lee[2], and H. Cho[1]
[1]Pusan National University, Korea, [2]Korea Maritime University, Korea

P-18 **Investigation of VHF Capacitively Coupled Plasma with DC Bias for Low-k film Etching Process**

T. Kimura[1], T. Yamaguchi[1], K. Takeda[1,2], C. Koshimizu[3], M. Sekine[1,2], and M. Hori[1,2]
[1]Nagoya University, Japan, [2]JST-CREST, Japan, [3]Tokyo Electron AT Limited, Japan

P-19 **The Improvement of Metal Etch Under Cut Margin with normal temperature process**

K.-H. HAN[1,2], J.-K. LEE[2], J.-H. SANG[2], D.-W. KIM, and D.-H. KIM[1]
[1]Samsung Institute of Technology (SSIT) University, Korea, [2]Samsung Electronics Co. Ltd., Korea

P-20 ***In Situ* Fourier Transform Infrared Diagnostics of Surface Reaction Layers and Reaction Products in Cl_2 Plasma Etching of Si**

H. Miyata, H. Tsuda, Y. Takao, K. Eriguchi, and K. Ono
Kyoto University, Japan

P-21 **Improvement of Active Pixel Sensor Open Etch Process**

J.-H. YOO[1,2], D.-H. KIM[1], J.-J. PARK[2], J.-S. HYUN[2], B.-G. JEON[2], and S.-I. KIM[2]
[1]Samsung Institute of Technology (SSIT) University, Korea, [2]Samsung Electronics Co. Ltd., Korea

P-22 **Atomic-scale analysis of plasma-surface interactions and feature profile evolution by molecular dynamics approaches**

H. Tsuda, T. Nagaoka, Y. Takao, K. Eriguchi, and K. Ono
Kyoto University, Japan

P-23 **The Improvement of 90nm Metal Etch Under Cut Margin with normal temperature process**

K.-H. HAN[1,2], J.-K. LEE[2], J.-H. SANG[2], D.-W. KIM, and D.-H. KIM[1]
[1]Samsung Institute of Technology (SSIT) University, Korea, [2]Samsung Electronics Co. Ltd., Korea

P-24 **Discharge properties of diamond etched by reactive ion etcher with MgO electrode**

T. Misu, S. Ono, T. Higa, M. Goto, K. Koh, and T. Arai
Kanagawa Institute of Technology, Japan

P-25 **Investigation of Si_3N_4 liner disappearance caused by high density plasma at shallow trench isolation process**

B.-C. CHOI[1,2], T.-J. KIM[2], E.-G. LEE[2], J.-S. PARK[2], R.-K. LEE[2], B.-S. KIM[2], and D.-H. KIM[1]
[1]Samsung Institute of Technology (SSIT) University, Korea, [2]Samsung Electronics Co. Ltd., Korea

P-26 **Effects of Plasma Process Fluctuation on Variation in MOS Device Parameters**

K. Eriguchi, Y. Nakakubo, A. Matsuda, M. Kamei, Y. Takao, and K. Ono
Kyoto University, Japan

P-27 **Study of high voltage transistor (HVTR) leakage path modeling at shallow trench isolation structure**

D.-M. SEO[1,2], J.-K. LEE[2], J.-H. SANG[2], and S.-O. Choi[2]
[1]Samsung Institute of Technology (SSIT) University, Korea, [2]Samsung Electronics Co. Ltd., Korea

P-28 **Role of Oxygen atoms in the Growth of Magnetron Sputter-Deposited ZnO Films**

A. Morita, J. Jin, and H. Shirai
Saitama University, Japan

P-30 **New roll coater using microwave plasma for touch screen manufacturing**

I. Liang[1], H. Ogawa[1], K. Kato[2], K. Iseki[3], and H. Sugai[1]
[1]Chubu University, Japan, [2]Nagoya Industrial Research Institute, Japan, [3]Toyobo Co. Ltd, Japan

P-31 **Comparison of wire properties and reliability(TCT,PCT,HTST) between Au-Ag-Pd and 4N Au Wire bonding**

M.-I. KIM[1,2], B.-J. KIM[2], S.-M. Yang[2], S.-H. LEE[2], C.-S. LEE[2], S.-M. SHIN[2], and D.-H. KIM[1]
[1]Samsung Institute of Technology (SSIT) University, Korea, [2]Samsung Electronics Co. Ltd., Korea

P-32 **Evaluation of Plasma Sheath Thickness in Reactive Plasmas by Discrete Ion-Focusing Effect**

E. Stamate, and M. Draghici
Technical University of Denmark, Denmark

P-33 **Deposition of transparent conductive films by a DC Arc Plasmatron**

O.V. Penkov, V.Yu. Plasksin, S.B. Joa, C.H. Kim, and H.J. Lee
Jeju National University, Korea

P-34 **Deodorant of Sweat by TiO_2 Coated on Wool Textile Using Atmospheric Plasma Jet Supplied with TTIP Solution**

M. Hayakawa, S. Parajulee, and S. Ikezawa
Chubu University, Japan

P-35 **Plasma Effect on the Physical Properties of Tin Oxide Thin Film**

M. Medhat, H.M. El-Sayed, M.A. Saudy, and M. Saleh
Ain Shams University, Egypt

P-36 **Development of Scratch Test Methodology and Characterization of Surface Damage of Ti (O, N) Film**

S. Parajulee, M. Hayakawa, and S. Ikezawa
Chubu University, Japan

P-37 **Atmospheric PECVD deposition of nanostructured titanium oxide thin layers by means of barrier-torch discharge**

S. Kment[1], O. Churpita[1], Z. Hubicka[1], M. Cada[1], J. Olejnicek, P. Kluson[2], and L. Jastrabik[1]
[1]Institute of Physics AS CR, Czech Republic, [2]Institute of Chemical Process Fundamentals AS CR, Czech Republic

P-38 **Microstructure of Ni-Based Metallic Glass Coating by Gas Tunnel Type Plasma Spraying**

A. Kobayashi[1], T. Kuroda[1], H. Kimura[2], and A. Inoue[2]
[1]Osaka University, Japan, [2]Tohoku University, Japan

P-39 **Visible light active Photocatalytic properties of nanocrystalline TiO_2 Synthesized by Reactive Plasma Processing**

M. Vijay[1], V. Selvarajan[1], K.P. Sreekumar[2], and P.V. Ananthapadmanabhan[2]
[1]Bharathiar University, India, [2]Bhabha Atomic Research Centre, India

P-40 **TiO_2 Coating Fabricated by Atmospheric Pressure Microwave Plasma Spray Using Suspension**

T. Kondo, T. Yasui, and M. Fukumoto
Toyohashi University of Technology, Japan

P-41 **Optical characterization of TiO_2-based plasma sprayed coatings for photocatalytic applications**

P. Ctibor
Academy of Sciences of the Czech Republic, Czech Republic

P-42 **Enhancement of Reactive Atmospheric Plasma Sprayed Aluminum Particles**

M. Shahien, M. Yamada, T. Yasui, and M. Fukumoto
Toyohashi University of Technology, Japan

P-43 **Synthesis of DNA Conjugated Gold Nanoparticles Using Gas-Liquid Interfacial Plasmas**

Q. Chen[1], T. Kaneko[1,2], and R. Hatakeyama[1]
[1]Tohoku University, Japan, [2]CREST/JST, Japan

P-44 **Deposition of Hydrophobic Nano-Film on Polymeric Surface with Radio Frequency Fluorocarbon Plasma Polymerization**

C. Huang, C.-I. Lin, C.-H. Pan, and C.-Y. Tsai
Yuan Ze University, Taiwan

P-45 **Study of the interaction mechanism of colloidal nanoparticles with laser beam**

A. Pyatenko, and N. Koshizaki
National Institute of Advanced Industrial Science and Technology (AIST), Japan

P-46 **Non-linear properties of lead-based PMN-PT solid solution nanocomposites**

J.-W. Hyun, Y.-J. Kim, and J.-W. Park
Dankook University, Korea

P-47 **Fabrication of Gold Nanoparticles in Supercritical CO_2-Assisted Pulsed Laser Ablation**

S. Machmudah, Y. Kuwahara, Wahyudiono, M. Sasaki, and M. Goto
Kumamoto University, Japan

P-48 **Porosity in solids: computer simulation of blistering at nucleation fluctuation stage**
A. Bondareva, and G. Zmievskaya
M.V. Keldysh institute of applied mathematics of Russian Academy of Sciences, Russia

P-50 **Charging and Magnetizing Characteristics of Co Nanodots**
K. Makihara, A. Kawanami, M. Ikeda, R. Ashihara, and S. Miyazaki
Hiroshima University, Japan

P-51 **Effect of different sputtering time on the synthesis of copper nano particles grown on AISI 304 substrate by cylindrical magnetron sputtering system**
M. Ghoranneviss, M. Eshghabadi, and A. Mahmoodi
Science and research branch center I.A.U, Iran

P-52 **Quasi-Bragg grating with sub-wavelength particles**
K. Ishikawa, N. Ebizuka, K. Takeda, H. Kondo, M. Sekine, and M. Hori
Nagoya University, Japan

P-53 **Toxicity of CIGS nano-particles**
S. Iwashita, H. Miyata, Y. Yamada, K. Koga, M. Shiratani, M. Hirata, Y. Kiyohara, and A. Tanaka
Kyushu University, Japan

P-54 **Mass Spectrometric Measurement of Neutral Radicals in SiH_4/H_2 High Density Microwave Plasma**
T. Kuroda, T. Ishijima, and H. Toyoda
Nagoya University, Japan

P-55 **Microcrystalline Silicon Film Deposition by 915 MHz High-Density Microwave Plasma**
J. Sakai, T. Ishijima, and H. Toyoda
Nagoya University, Japan

P-56 **Analysis of Plasma Interactions with Soft Materials Using Combinatorial Plasma Process Analyzer**
K. Takenaka[1,4], Y. Setsuhara[1,4], K. Cho[1,4], M. Shiratani[2,4], M. Sekine[3,4], and M. Hori[3,4]
[1]Osaka University, Japan, [2]Kyushu University, Japan, [3]Nagoya University, Japan, [4]Japan Science and Technology Agency, CREST, Japan

P-57 **Protein patterning with selective adsorption on surface by partial plasma polymerization**
H. Takahashi, T. Ii, A. Irie, and H. Muguruma
Shibaura Institute of Technology, Japan

P-58 **Experimental Verification of Etching Effect of Microorganism Due to Oxygen Radicals**
Y. Zhao, A. Tsukasaki, A. Ogino, and M. Nagatsu
Shizuoka University, Japan

P-59 **Study of bacteria sterilization at low discharge voltage by using microplasma**
Y. Komuro, M. Blajan, and K. Shimizu
Shizuoka University, Japan

P-60 **Analysis of plant nutrients by laser-induced breakdown spectroscopy**
T. Ohta[1], K. Yamamoto[1], and M. Ito[2]
[1]Wakayama University, Japan, [2]Meijo University, Japan

P-61 **Surface-wave Plasma Induced Grafting Polymerization of Polyethylene Glycol onto Polymer Surface and Immobilization of L-Cysteine**
Z. Shao, S. Noguchi, A. Ogino, and M. Nagatsu
Shizuoka University, Japan

P-62 **Decomposition of Dimethyl Sulfide(DMS) using Atmospheric Argon Micro-plasma System**
H.-H. Chen, C.-C. Weng, J.-D. Liao, W.-H. Kang, L.-M. Whang, C.-C. Chao, and J.-E. Chang
National Cheng Kung University, Taiwan

P-63 **Observation of Microwave Plasma Ignition in Water using High-Speed Camera and Calculation of Temperature Distribution around Coaxial Electrode**
Y. Hattori, S. Mukasa, S. Nomura, and H. Toyota
Ehime University, Japan

P-64 **Control of plasma and cavitation bubble in liquid-phase laser ablation by applying supersonic wave**
A. Fujikawa, N. Takada, and K. Sasaki
Nagoya University, Japan

P-65 **Surface Activation of Poly (vinylidene fluoride) Membrane by Cyclonic Atmospheric Pressure Plasma Processing**
R.-S. Juang, H.-Y. Cheng, C.-Y. Tsai, Y.-C. Chang, and C. Huang
Yuan Ze University, Taiwan

P-66 **Hollow plate effects on microwave plasma production at high pressure**
S. Ohta[1], I. Liang[1], K. Kato[2], K. Nakamura[1], and H. Sugai[1]
[1]Chubu University, Japan, [2]Nagoya Industrial Research Institute, Japan

P-67 **Hydrothermal Pulsed Discharge Plasma for Conversion of Organic Compounds**

Wahyudiono, M. Mitsugi, H. Watanabe, K. Nagafuchi, T. Kiyan, M. Sasaki, H. Akiyama, and M. Goto
Kumamoto University, Japan

P-68 **Measurements of electron energy distribution accelerated in the cathode region in CCP by using energy analyzer**

T. Matsubara[1], T. Muranaka[1], T. Hayashi[1], A. Kono[1], N. Mizutani[2], and K. Suu[2]
[1]Nagoya University, Japan, [2]ULVAC Inc., Japan

P-69 **Deposition of $Zn_{1-x}Mn_xO$ thin films by Atmospheric Barrier-Torch Discharge and measurement of electron density from Stark broadening of H_β**

J. Olejnicek, O. Churpita, Z. Hubicka, S. Kment, M. Cada, A. Dejneka, and L. Jastrabik
Institute of Physics AS Cr, Czech Republic

P-70 **Saturation of the Balmer-α line of atomic hydrogen in diode laser absorption spectroscopy**

R. Asakawa[1], M. Goto[2], and K. Sasaki[1]
[1]Nagoya University, Japan, [2]National Institute for Fusion Science, Japan

P-71 **Time Resolved Measurement of H_β Emission from Atmospheric-Pressure Pulsed Microwave Plasma**

A. Kamata, H. Yang, T. Ishijima, and H. Toyoda
Nagoya University, Japan

P-72 **Measurement of Multiphoton Ionization Efficiency Relevant to Laser Thomson scattering diagnostics**

Y. Matsuda, M. Aramaki, and A. Kono
Nagoya University, Japan

P-73 **Emission spectroscopy of microplasma in Ar/N_2 mixture for surface treatment applications**

M. Blajan, S. Muramatsu, A. Umeda, and K. Shimizu
Shizuoka University, Japan

P-74 **Measurement of plasma parameters of atmospheric pressure microplasma jet excited by microwave**

T. Shirasaki, M. Aramaki, and A. Kono
Nagoya University, Japan

P-75 **Surface Loss Probabilities of H, N Radicals in Afterglow Plasma**

C.S. Moon[1], K. Takeda[1], S. Takashima[2], M. Sekine[1,5], Y. Setsuhara[3,5], M. Shiratani[4,5], and M. Hori[1,5]
[1]Nagoya University, Japan, [2]Plasma Center for Industrial Applications, Japan, [3]Osaka University, Japan, [4]Kyushu University, Japan, [5]Japan Society of Technology Agency, Japan

P-76 **Measurements of molecular nitrogen densities in sparkplug assisted atmospheric-pressure microwave discharges using rotational Raman scattering**

M. ElSabbagh[1], S. Kado[2], M. Kaneko[3], Y. Ikeda[3], and K. Sasaki[1]
[1]Nagoya University, Japan, [2]The University of Tokyo, Japan, [3]Imagineering Inc., Japan

P-77 **A Stable Large-Volume Fluorine Negative-Ion Source for Ultrafine Etching**

M Abid Imtiaz, and T. Mieno
Shizuoka University, Japan

P-78 **Effects of amplitude modulation of RF discharge volatege on ion saturation current**

H. Miyata, S. Iwasita, Y. Yamada, K. Koga, and M. Shiratani
Kyushu University, Japan

P-79 **Synthesis dynamics of nanoparticles produced by laser ablation of a solid target immersed in pressurized water**

W. Soliman, N. Takada, and K. Sasaki
Nagoya University, Japan

P-80 **XPS Analysis of Plasma-Polymer Interactions for Organic-Inorganic Hybrid Materials**

K. Cho[1,4], K. Takenaka[1,4], Y. Setsuhara[1,4], M. Shiratani[2,4], M. Sekine[3,4], and M. Hori[3,4]
[1]Osaka University, Japan, [2]Kyushu University, Japan, [3]Nagoya University, Japan, [4]Japan Science and Technology Agency, CREST, Japan

P-81 **H_α emission intensity measurements of H_2+Ar+C_7H_8 plasmas in H-assisted plasma CVD reactor**

T. Nomura[1], Y. Korenaga[1], K. Koga[1,4], M. Shiratani[1,4], Y. Setsuhara[2,4], M. Sekine[3,4], and M. Hori[3,4]
[1]Kyushu University, Japan, [2]Osaka University, Japan, [3]Nagoya University, Japan, [4]JST CREST, Japan

P-82 **Ar/H_2O plasma treatment of multiwall carbon nanotubes for dispersion Improvement in water**

C. Chen, A. Ogino, B. Liang, and M. Nagatsu
Shizuoka University, Japan

P-83 **Deposition of n-type a-Si:H using SiH_4+PH_3 multi-hollow discharge plasma CVD**

K. Nakahara, H. Sato, Y. Kawashima, K. Koga, and M. Shiratani
Kyushu University, Japan

P-84 **Surface temperature rise of a-Si:H films during deposition in silane multi-hollow discharges**

Y. Kawashima, K. Nakahara, H. Sato, W.M. Nakamura, K. Koga, and M. Shiratani
Kyushu University, Japan

P-85 **Numerical Analysis on Heat Convection in the Synthesis of Single Walled Carbon Nanotubes by Arc Vaporization**

G.-D. Tan, and T. Mieno
Shizuoka University, Japan

P-86 **Effect of Post-Baking on Copper Adhesion to Polyimide Films Treated by High Density Microwave Plasma**

K. Usami[1], T. Ishijima[1], H. Toyoda[1], K. Iseki[2], H. Sugai[3]
[1]Nagoya University, Japan, [2]Toyobo Co. Ltd., Japan, [3]Chubu University, Japan

Banquet (19:00-20:30)

Friday, March 12, 2010

Special session on Frontier science of interactions between plasmas and nano-interfaces (9:00-11:50)

9:00 S-01 **Frontier science of interactions between plasmas and nano-interfaces**
M. Shiratani, and K. Koga
Kyushu University, Japan

9:30 S-02 **Nano-interface plasmas generated in supercritical fluids and their application to nanomaterials processing**
K. Terashima, S. Stauss, H. Miyazoe, T. Shizuno, and K. Saito
The University of Tokyo, Japan

10:00 S-03 **Plasmas Involving Liquid Media, and Their Applications**
T. Shirafuji, Y. Noguchi, J. Hieda, N. Saito, and O. Takai
Nagoya University, Japan

Coffee Break (10:30-10:50)

10:50 S-04 **Physical control of plasma and cavitation bubble in liquid-phase laser ablation**
K. Sasaki, and N. Takada
Nagoya University, Japan

11:20 S-05 **Atmospheric Glow Discharges with Liquid Electrode – Toward Understanding of Plasma-Liquid Interface –**
F. Tochikubo, N. Shirai, and S. Uchida
Tokyo Metropolitan University, Japan

Lunch (11:50-13:00)

Invited Talks 3 (13:00-14:10)

13:00 I-08 **Modelling of chlorine inductive discharges**
P. Chabert, and E. Despiau-Pujo
Ecole Polytechnique, France

13:35 I-09 **Plasma functionalized carbon nanomaterials for nanocomposite bio-scaffolds and cell viability effects**
O.J. Yoon[1], H.J. Lee[2], S.S. Kim[2], and N.-E. Lee[1]
[1]Sungkyunkwan University, Korea, [2]Chung Ang University, Korea

Contributed Talks 2 (14:10-15:10)

14:10 O-05 **Population inversion in a magnetized thermal plasma investigated by active and passive spectroscopy**
W.E.N. van Harskamp[1], O. Gabriel[2], D.C. Schram[1], M.C.M. van de Sanden[1], and R. Engeln[1]
[1]Eindhoven University of Technology, The Netherlands, [2]Helmholtz-Zentrum für Materialien und Energie GmbH, Germany

14:30 O-06 **Ultrafast heating in air at atmospheric pressure for nanotechnology applications**
D.Z. Pai, G.D. Stancu, F. Kaddouri, D.A. Lacoste, and C.O. Laux
Ecole Centrale Paris, France

14:50 O-07 **Anisotropic film construction using plasma nanotechnology (atomic polymerization)**
L. Hoferek[1], R. Trivedi[1], J. Mistrik[1,2], and V. Cech[1]
[1]Brno University of Technology, Czech Republic, [2]University of Pardubice, Czech Republic

Coffee Break (15:10-15:30)

Invited Talks 4 (15:30-17:50)

15:30 I-10 **Tailoring nanostructures with low-temperature plasmas**
U. Cvelbar
Jozef Stefan Institure, Slovenia

16:05 I-11 **Focused Inert Ion Beam systems for 3D rock tomography on the nano-scale**
R. Boswell, and T. Senden
RSPE, ANU, Australia

16:40 I-12 **ZnO nano-materials: Synthesis, Characteristic, and Application**
S.-H. Nam, M.-H. Kim, S.-D. Lee, B. Hong, Y.-J. Kim, and J.-H. Boo
Sungkyunkwan University, Korea

17:15 I-13 **With the aim of establishing low-cost fabrication technology for high-performance nitride-based light emitters**
H. Amano, M. Iwaya, S. Kamiyama, and I. Akasaki
Meijo University, Japan

17:50 Closing Remarks